

- (a) **“First, the applicant is reminded that a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill without any specific hint or suggestion in a particular reference.”**

The Federal Circuit, in *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002) has addressed this contention and expressly rejected it. Enclosed are copies of two pages from the leading patent treatise, “Chisum on Patents,” §5.04[1][e][iv], discussing the Federal Circuit’s decision, and stating the holding:

“the PTO board erred in stating that it could reach a conclusion of obviousness based on ‘common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference’.”
(emphasis added).

Also enclosed is a copy of the case, which leaves no room for argument on this point--any rejections that are being maintained based on “common knowledge and common sense” must be withdrawn.

- (b) **“Second, Temple provides a flexible cable connected to a toggle bar so as to provide a mechanism that is simple in construction and in operation.”**

It is acknowledged that Temple provides a flexible cable and that the device is simple in construction and operation. This has no particular relevance, however. The rejections are based on modifying Onofrio, and the question is not how well a flexible cable works in Temple; the question is whether there was any motivation to use a flexible cable as a substitute for the rod in Onofrio.

The Examiner has not shown that there was any such motivation, so there is no *prima*

facie basis any rejections on this ground as Applicant has previously pointed out. Moreover, the proposed substitution is contrary to the teachings of Onofrio for at least the following reason: Onofrio is a fastener used to fasten drywall panels, as taught at Col. 2, lines 23 - 25. It employs, not just any rod, but a threaded rod, the rod being threaded so that the relative positions of the rod and the wings 20 can be adjusted for tightening the fastener, as taught at col. 3, lines 33 - 67. A flexible cable cannot be threaded and is, for this reason among others, not an appropriate substitute for the rod.

- (c) **“Further, by providing a flexible cable instead of using a rod . . . will not affect the mechanism or the operation of the bolt assembly.”**

This is both incorrect and irrelevant. It is irrelevant because MPEP §2143.01 states emphatically: **“FACT THAT REFERENCES CAN BE COMBINED OR MODIFIED IS NOT SUFFICIENT TO ESTABLISH *PRIMA FACIE* OBVIOUSNESS”** (emphasis in original). It does not establish obviousness to argue that Onofrio would work just as well if the rod were replaced with a flexible cable, even if this were true. But it is not true, and so the statement is also incorrect, as explained in (b) above.

- (d) **“As seen in Attachment #1, Hamlin [U.S. Patent No. 4,615,514] teaches a plug (36) that includes a recess capable of receiving and holding a toggle bar in a closed position.”**

This statement contains a critical error that renders it incapable of supporting the rejections. It is true that Hamlin discloses a structure that is capable of locking the arm members 20 and 22 *in the position shown in Attachment #1*. However, that is not the claimed “closed

position.” To the contrary, the arm members 20 and 22 are shown held in an “open position” that would prevent the device from being inserted into, or withdrawn from, the hole. So Attachment #1 is simply more evidence that Hamlin fails to teach or suggest the subject matter claimed.

- (e) **“As to the rejection of claims 58 and 59, although the arguments presented by the applicant with respect that the prior art does not teach or suggest the method claimed, the previous rejection to the claims has been withdrawn and a new grounds of rejection has been made on the record in view of Onofrio, as modified by Temple and Hamlin, since Burbidge teachings are irrelevant to the rejection of these claims.”**

The rejections of claims 58 and 59 merely recite the claim elements along with a list of references, Burbidge now being omitted from the list. No explanation is provided as to how or where the references allegedly teach or suggest the claimed invention, and so these rejections do not meet the basic requirements of a *prima facie* case (MPEP §2142 *et seq.*)

Conclusion

For the reasons explained above, none of the arguments made in the “Response to Arguments” section of the Office Action is effective to rebut the Applicant’s prior showing that the rejections stand unsupported. Accordingly, the Examiner is respectfully requested to allow the claims and pass this case to issue.

Respectfully submitted,



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Similarly, in *In re Lee* (2002),¹⁰⁰ the court held that the PTO board erred in stating that it could reach a conclusion of obviousness based on "common

references showing (1) conventional trash bags, and (2) "children's art" with jack-o'-lantern faces on the outside of paper sacks (Holiday and Shapiro). The court reversed because the PTO's broad conclusory statements regarding the teaching of multiple references, standing alone, were not "actual evidence" supporting a suggestion to combine.

"All the obviousness rejections affirmed by the Board resulted from a combination of prior art references, e.g., the conventional trash or yard bags, and the Holiday and Shapiro publications teaching the construction of decorated paper bags. . . . To justify this combination, the Board simply stated that 'the Holiday and Shapiro references would have suggested the application of . . . facial indicia to the prior art plastic trash bags. . . . However, rather than pointing to specific information in Holiday or Shapiro that suggest the combination with the conventional bags, the Board instead described in detail the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other—in combination with each other and the conventional trash bags—described all of the limitations of the pending claims. . . . Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the children's art references (Holiday and Shapiro) with the conventional trash or lawn bag references, nor does the Board make specific—or even inferential—findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any other factual findings that might serve to support a proper obviousness analysis."

"To the contrary, the obviousness analysis in the Board's decision is limited to a discussion of the ways that the multiple prior art references can be combined to read on the claimed invention. For example, the Board finds that the Holiday bag reference depicts a 'premanufactured orange' bag material, . . . finds that Shapiro teaches the use of paper bags in various sizes, including 'large', . . . and concludes that the substitution of orange plastic for the crepe paper of Holiday and the paper bags of Shapiro would be an obvious design choice. . . . Yet this reference-by-reference, limitation-by-limitation analysis fails to demonstrate how the Holiday and Shapiro references teach or suggest their combination with the conventional trash or lawn bags to yield the claimed invention. See *Rouffet* . . . (noting Board's failure to explain, when analyzing the prior art, 'what specific understanding or technical principle . . . would have suggested the combination'). Because we do not discern any finding by the Board that there was a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Board's conclusion of obviousness, as a matter of law, cannot stand."

175 F.3d at 1000, 50 USPQ2d at 1617-18.

See also *Ecolocchem, Inc. v. Southern California Edison Co.*, 227 F.3d 1361, 1374, 56 USPQ2d 1065, 1975 (Fed. Cir. 2000), *cert. denied*, 532 U.S. 974 (2001) (a district court's "reference-by-reference, limitation-by-limitation analysis wholly fails to demonstrate how the prior art teaches or suggests the combination claimed in the . . . patent.").

¹⁰⁰ *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002). See § 11.03[1][c][iii][A].

Compare *In re Huston*, 308 F.3d 1267, 1280, 64 USPQ2d 1801 (Fed. Cir. 2002) (unlike *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), the Board did not rely merely on "common knowledge" and "common sense" to find a motivation to combine the references; it made a "passing reference" to such knowledge and sense, but, in fact, it found the motivation in the prior references themselves."; *PROST, DISSENTING IN PART*: ". . . I cannot agree that the Board's conclusions as to the combination of [the two references] are 'cryptic'—they are nonexistent."; *In re Thrift*, 298 F.3d 1357, 1364, 63 USPQ2d 2002 (Fed. Cir. 2002) (an examiner and the PTO Board provided clear documentation of its reasoning in rejecting an applicant's claim

knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference.”¹⁰¹

“The factual inquiry whether to combine references must be thorough and searching.” . . . It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (‘a showing of a suggestion, teaching, or motivation to combine the prior art references is an “essential component of an obviousness holding”’ (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (‘Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.’); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (‘“teachings of references can be combined *only* if there is some suggestion or incentive to do so.”’) (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). . . . The need for specificity pervades this authority. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (‘particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed’); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (‘even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of

1, but they failed to provide an adequate ground for rejecting the applicant’s claims 11 and 14; “Recently, in *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), we held that the Board’s reliance on ‘common knowledge and common sense’ did not fulfill the agency’s obligation to cite references to support its conclusions. . . . Instead, the Board must document its reasoning on the record to allow accountability. . . . This documentation also allows effective judicial review.”; CLEAR IDENTIFICATION OF MOTIVATION TO COMBINE: “In the present case, the reasoning articulated by the Board is exactly the type of reasoning required by *In re Lee*. Both the examiner and the Board clearly identified a motivation to combine the references . . .”).

See also National Steel Car, Ltd. v. Canadian Pacific Railway, Ltd., 254 F. Supp.2d 527, 566 (E.D. Pa. 2003) (citing *Lee*: “When inquiring as to the facts surrounding whether there was a suggestion, teaching, or motivation to combine the prior art references, a Court must be thorough and searching.”).

101 277 F.3d at 1343.

In re SANG-SU LEE.

No. 00-1158.

United States Court of Appeals,
Federal Circuit.

Jan. 18, 2002.

founded on the obligation of the agency to make the necessary findings and to provide an administrative record showing the evidence on which the findings are based, accompanied by the agency's reasoning in reaching its conclusions. 5 U.S.C.A. § 551 et seq.

Board of Patent Appeals and Interferences rejected all claims of inventor's patent application directed toward method of automatically displaying functions of video display device that demonstrated how to select and adjust functions in order to facilitate response by user. Inventor appealed. The Court of Appeals, Pauline Newman, Circuit Judge, held that analysis by Board did not comport with either legal requirements for determination of obviousness or with requirements of Administrative Procedure Act (APA).
Vacated and remanded.

1. Patents \S 113(6)

Tribunals of the Patent and Trademark Office (PTO) are governed by the Administrative Procedure Act (APA), and their rulings receive the same judicial deference as do tribunals of other administrative agencies. 5 U.S.C.A. § 551 et seq.

2. Administrative Law and Procedure \S 485, 507

For judicial review to be meaningfully achieved within the strictures of the Administrative Procedures Act (APA), an agency tribunal must present a full and reasoned explanation of its decision; the agency tribunal must set forth its findings and the grounds thereof, as supported by the agency record, and explain its application of the law to the found facts. 5 U.S.C.A. § 706(2).

3. Patents \S 113(6)

Judicial review of a decision of the Board of Patent Appeals and Interferences denying an application for a patent is

ous that person skilled in the art would have been motivated to combine prior art, and Board rejected need for any specific hint or suggestion in particular reference to support combination of prior art. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

8. Patents \S 26(1)

In an obviousness determination, the factual question of motivation to combine prior art is material to patentability, and cannot be resolved on subjective belief and unknown authority. 35 U.S.C.A. § 103.

9. Patents \S 26(1), 111

In an obviousness determination under patent law, it is improper, in determining whether a person of ordinary skill would have been led to combine references, simply to use that which the inventor taught against its teacher; thus, the Board of Patent Appeals and Interferences must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

10. Administrative Law and Procedure \S 507

Differential judicial review under the Administrative Procedure Act (APA) does not relieve the agency of its obligation to develop an evidentiary basis for its findings; to the contrary, the APA reinforces this obligation. 5 U.S.C.A. § 706(2).

11. Administrative Law and Procedure \S 763, 796

In the context of judicial review under the Administrative Procedure Act (APA), a decision by an agency tribunal that has an omission of a relevant factor required by precedent is both legal error and "arbitrary agency action." 5 U.S.C.A. § 551 et seq.

See publication Words and Phrases for other judicial constructions and definitions.

12. Administrative Law and Procedure \S 485, 760

The foundation of the principle of judicial deference under the Administrative Procedures Act (APA) to the rulings of agency tribunals is that the tribunal has specialized knowledge and expertise, such that when reasoned findings are made, a reviewing court may confidently defer to the agency's application of its knowledge in its area of expertise; however, reasoned findings are critical to the performance of agency functions and judicial reliance on agency competence. 5 U.S.C.A. § 706(2).

13. Patents \S 16(1)

The determination of patentability on the ground of obviousness is ultimately one of judgment; in furtherance of the judgmental process, the patent examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. 35 U.S.C.A. § 103.

14. Patents \S 16(3), 104, 111

In the context of an obviousness determination, the patent examiner and the Board of Patent Appeals and Interferences are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of the person having ordinary skill in the art to which said subject matter pertains. 35 U.S.C.A. § 103.

15. Patents \S 104

In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board of Patent Appeals and Interferences are presumed to act from the viewpoint of a person having ordinary skill in the art to which the subject matter pertains; thus, when they rely on what they assert to be general knowledge to

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negate patentability, that knowledge must be articulated and placed on the record and the failure to do so is not consistent with either effective administrative procedure or effective judicial review. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

16. Patents ¶111

In the context of an obviousness determination, the Board of Patent Appeals and Interferences cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

17. Administrative Law and Procedure ¶¶326, 485, 507

Sound administrative procedure requires that an agency apply the law in accordance with statute and precedent; the agency tribunal must make findings of relevant facts, and present its reasoning in sufficient detail that the court may conduct meaningful review of the agency action. 5 U.S.C.A. § 706(2).

Richard H. Stern, of Washington, DC, argued for Sang Su Lee. With him on the brief was Robert E. Bushnell.

Sidney O. Johnson, Jr., Associate Solicitor, of Arlington, Virginia, argued for the Director of the U.S. Patent and Trademark Office. With him on the brief were John M. Whealan, Solicitor, and Raymond T. Chen, Associate Solicitor. Of counsel were Maximilian R. Peterson and Mark Nagumo, Associate Solicitors.

Before PAULINE NEWMAN, CLEVELINGER, and DYK, Circuit Judges.

1. *Ex parte Lee*, No.1994-1989 (Bd. Pat.App. & Int. Aug. 30, 1994; on reconsideration Sept. 29, 1999).

PAULINE NEWMAN, Circuit Judge. Sang-Su Lee appeals the decision of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office, rejecting all of the claims of Lee's patent application Serial No. 07/083,210 entitled "Self-Diagnosis and Sequential-Display Method of Every Function." We vacate the Board's decision for failure to meet the adjudicative standards for review under the Administrative Procedure Act, and remand for further proceedings.

The Prosecution Record

Mr. Lee's patent application is directed to a method of automatically displaying the functions of a video display device and demonstrating how to select and adjust the functions in order to facilitate response by the user. The display and demonstration are achieved using computer-managed electronics, including pulse-width modulation and auto-fine-tuning pulses, in accordance with procedures described in the specification. Claim 10 is representative.

10. A method for automatically displaying functions of a video display device, comprising: determining if a demonstration mode is selected; if said demonstration mode is selected, automatically entering a picture adjustment mode having a picture menu screen displaying a list of a plurality of picture functions; and automatically demonstrating selection and adjustment of individual ones of said plurality of picture functions.

The examiner rejected the claims on the ground of obviousness, citing the combination of two references: United States Patent No. 4,626,892 to Nortrup, and the Thunderchopper Helicopter Operations

1999).

Handbook for a video game. The Nortrup reference describes a television set having a menu display by which the user can adjust various picture and audio functions; however, the Nortrup display does not include a demonstration of how to adjust the functions. The Thunderchopper Handbook describes the Thunderchopper game's video display as having a "demonstration mode" showing how to play the game; however, the Thunderchopper Handbook makes no mention of the adjustment of picture or audio functions. The examiner held that it would have been obvious to a person of ordinary skill to combine the teachings of these references to produce the Lee system.

Lee appealed to the Board, arguing that the Thunderchopper Handbook simply explained how to play the Thunderchopper game, and that the prior art provided no teaching or motivation or suggestion to combine this reference with Nortrup, or that such combination would produce the Lee invention. The Board held that it was not necessary to present a source of a teaching, suggestion, or motivation to combine these references or their teachings. The Board stated:

The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference.

Board op. at 7. The Board did not explain the "common knowledge and common sense" on which it relied for its conclusion that "the combined teachings of Nortrup and Thunderchopper would have suggested the claimed invention to those of ordinary skill in the art."

Lee filed a request for reconsideration, to which the Board responded after five years. The Board reaffirmed its decision, stating that the Thunderchopper Handbook was "analogous art" because it was "from the same field of endeavor" as

the Lee invention, and that the field of video games was "reasonably pertinent" to the problem of adjusting display functions because the Thunderchopper Handbook showed video demonstrations of the "features" of the game. On the matter of motivation to combine the Nortrup and Thunderchopper references, the Board stated that "we maintain the position that we stated in our prior decision" and that the Examiner's Answer provided "a well reasoned discussion of why there is sufficient motivation to combine the references." The Board did not state the examiner's reasoning, and review of the Examiner's Answer reveals that the examiner merely stated that both the Nortrup function menu and the Thunderchopper demonstration mode are program features and that the Thunderchopper mode "is user-friendly" and it functions as a tutorial, and that it would have been obvious to combine them.

Lee had pressed the examiner during prosecution for some teaching, suggestion, or motivation in the prior art to select and combine the references that were relied on to show obviousness. The Examiner's Answer before the Board, plus a Supplemental Answer, stated that the combination of Thunderchopper with Nortrup "would have been obvious to one of ordinary skill in the art since the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software," and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial." The Board adopted the examiner's answer, stating "the examiner has provided a well reasoned discussion of these references and how the combination of these references meets the claim limitations." However, perhaps recognizing that the examiner had provided insufficient justification to

support combining the Nortrup and Thunderchopper references, the Board held, as stated *supra*, that a "specific hint or suggestion" of motivation to combine was not required.

This appeal followed.

Judicial Review

[1] Tribunals of the PTO are governed by the Administrative Procedure Act, and their rulings receive the same judicial deference as do tribunals of other administrative agencies. *Dickinson v. Zurko*, 527 U.S. 150, 119 S.Ct. 1816, 144 L.Ed.2d 143, 50 USPQ2d 1980 (1999). Thus on appeal we review a PTO Board's findings and conclusions in accordance with the following criteria:

5 U.S.C. § 706(2) The reviewing court shall—

(2) hold unlawful and set aside agency actions, findings, and conclusions found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute;

[2, 3] For judicial review to be meaningfully achieved within these strictures, the agency tribunal must present a full and reasoned explanation of its decision. The agency tribunal must set forth its findings and the grounds thereof, as supported by the agency record, and explain its application of the law to the found facts. The Court has often explained:

The Administrative Procedure Act, which governs the proceedings of administrative agencies and related judicial review, establishes a scheme of "reasoned decisionmaking." Not only must an agency's decreed result be within the

scope of its lawful authority; but the process by which it reaches that result must be logical and rational.

Allentown Mack Sales and Service, Inc. v. National Labor Relations Bd., 522 U.S. 359, 374, 118 S.Ct. 818, 139 L.Ed.2d 797 (1998) (citation omitted). This standard requires that the agency not only have reached a sound decision, but have articulated the reasons for that decision. The reviewing court is thus enabled to perform meaningful review within the strictures of the APA, for the court will have a basis on which to determine "whether the decision was based on the relevant factors and whether there has been a clear error of judgment." *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416, 91 S.Ct. 814, 28 L.Ed.2d 136 (1971). Judicial review of a Board decision denying an application for patent is thus founded on the obligation of the agency to make the necessary findings and to provide an administrative record showing the evidence on which the findings are based, accompanied by the agency's reasoning in reaching its conclusions. *See In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (review is on the administrative record); *In re Gartside*, 203 F.3d 1305, 1314, 53 USPQ2d 1769, 1774 (Fed. Cir. 2000) (Board decision "must be justified within the four corners of the record").

[4, 5] As applied to the determination of patentability *vel non* when the issue is obviousness, "it is fundamental that rejections under 35 U.S.C. § 103 must be based on evidence comprehended by the language of that section." *In re Grasse*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983). The essential factual evidence on the issue of obviousness is set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed.2d 545, 148 USPQ 459, 467 (1966) and extensive ensuing precedent. The patent examiners

tion process centers on prior art and the analysis thereof. When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. *See, e.g., McKinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the *Graham* factors).

[6] "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

"Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined *only* if there is some suggestion or incentive to do so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Mon-*

tefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references").

[7-9] With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question

of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed.Cir.1983). Thus the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion.

[10] Deferential judicial review under the Administrative Procedure Act does not relieve the agency of its obligation to develop an evidentiary basis for its findings. To the contrary, the Administrative Procedure Act reinforces this obligation. See, e.g., *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983) ("the agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'") (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962)); *Securities & Exchange Comm'n v. Chenery Corp.*, 318 U.S. 80, 94, 63 S.Ct. 454, 87 L.Ed. 626 (1943) ("The orderly function of the process of review requires that the grounds upon which the administrative agency acted are clearly disclosed and adequately sustained.").

[11] In its decision on Lee's patent application, the Board rejected the need for "any specific hint or suggestion in a particular reference" to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action. See *Motor Vehicle Manufacturers*, 463 U.S. at

43, 103 S.Ct. 2856 ("an agency rule would be arbitrary and capricious if the agency... entirely failed to consider an important aspect of the problem"); *Mullins v. Department of Energy*, 50 F.3d 990, 992 (Fed.Cir.1995) ("It is well established that agencies have a duty to provide reviewing courts with a sufficient explanation for their decisions so that those decisions may be judged against the relevant statutory standards, and that failure to provide such an explanation is grounds for striking down the action."). As discussed in *National Labor Relations Bd. v. Ashland, Property Mgt. Corp.*, 817 F.2d 74, 75 (9th Cir.1987), an agency is "not free to refuse to follow circuit precedent."

[12] The foundation of the principle of judicial deference to the rulings of agency tribunals is that the tribunal has specialized knowledge and expertise; such that when reasoned findings are made, a reviewing court may confidently defer to the agency's application of its knowledge in its area of expertise. Reasoned findings are critical to the performance of agency functions and judicial reliance on agency conclusions. See *Baltimore and Ohio R.R. Co. v. Aberdeen & Rockfish R.R. Co.*, 333 U.S. 87, 91-92, 89 S.Ct. 280, 21 L.Ed.2d 219 (1968) (absent reasoned findings based on substantial evidence, effective review would become lost "in the haze of so-called expertise"). The "common knowledge and common sense" on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. Conclusory statements, such as those here provided do not fulfill the agency's obligation. This court explained in *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697, that "deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is basic knowledge' or 'common sense.'"

Board's findings must extend to all material facts and must be documented on the record, lest the "haze of so-called expertise" acquire insulation from accountability. "Common knowledge and common sense," even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority. See *Alentown Mack*, 522 U.S. at 376, 118 S.Ct. 818 ("Because reasoned decisionmaking demands it, and because the systemic consequences of any other approach are unacceptable, the Board must be required to apply in fact the clearly understood legal standards that it enunciates in principle....")

The case on which the Board relies for its departure from precedent, *In re Bozek*, 57 C.C.P.A. 713, 416 F.2d 1385, 163 USPQ 545 (1969), indeed mentions "common knowledge and common sense," the CCPA stating that the phrase was used by the Solicitor to support the Board's conclusion of obviousness based on evidence in the prior art. *Bozek* did not hold that common knowledge and common sense are a substitute for evidence, but only that they may be applied to analysis of the evidence. *Bozek* did not hold that objective analysis, proper authority, and reasoned findings can be omitted from Board decisions. Nor does *Bozek*, after thirty-two years of isolation, outweigh the dozens of rulings of the Federal Circuit and the Court of Customs and Patent Appeals that determination of patentability must be based on evidence. This court has remarked, in *Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1421 (Fed.Cir.1999), that *Bozek*'s reference to common knowledge "does not in and of itself make it so" absent evidence of such knowledge.

[13-16] The determination of patentability on the ground of obviousness is ultimately one of judgment. In furtherance of the judgmental process, the patent

examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. The patent examiner and the Board are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of "the person having ordinary skill in the art to which said subject matter pertains," the words of section 103. In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board are presumed to act from this viewpoint. Thus when they rely on what they assert to be general knowledge to negate patentability, that knowledge must be articulated and placed on the record. The failure to do so is not consistent with either effective administrative procedure or effective judicial review. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.

Alternative Grounds

At oral argument the PTO Solicitor proffered alternative grounds on which this court might affirm the Board's decision. However, as stated in *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962), "courts may not accept appellate counsel's post hoc rationalization for agency action." Consideration by the appellate tribunal of new agency justifications deprives the aggrieved party of a fair opportunity to support its position; thus review of an administrative decision must be made on the grounds relied on by the agency. "If those grounds are inadequate or improper, the court is powerless to affirm the administrative action by substituting what it con-

siders to be a more adequate or proper basis." *Securities & Exchange Comm'n v. Chenery Corp.*, 332 U.S. 194, 196, 67 S.Ct. 1575, 91 L.Ed. 1995 (1947). As reiterated in *Federal Election Comm'n v. Akins*, 524 U.S. 11, 25, 118 S.Ct. 1777, 141 L.Ed.2d 10 (1998), "if a reviewing court agrees that the agency misinterpreted the law, it will set aside the agency's action and remand the case—even though the agency (like a new jury after a mistrial) might later, in the exercise of its lawful discretion, reach the same result for a different reason." Thus we decline to consider alternative grounds that might support the Board's decision.

Further Proceedings

[17] Sound administrative procedure requires that the agency apply the law in accordance with statute and precedent. The agency tribunal must make findings of relevant facts, and present its reasoning in sufficient detail that the court may conduct meaningful review of the agency action. In *Radio-Television News Directors Ass'n v. FCC*, 184 F.3d 872 (D.C.Cir.1999) the court discussed the "fine line between agency reasoning that is 'so crippled as to be unlawful' and action that is potentially lawful but insufficiently or inappropriately explained," quoting from *Checosky v. Securities & Exch. Comm'n*, 23 F.3d 452, 464 (D.C.Cir.1994); the court explained that "[i]n the former circumstance, the court's practice is to vacate the agency's order, while in the latter the court frequently remands for further explanation (including discussion of the relevant factors and precedents) while withholding judgment on the lawfulness of the agency's proposed action." *Id.* at 888. In this case the Board's analysis of the Lee invention does not comport with either the legal requirements for determination of obviousness or with the requirements of the Administrative Procedure Act that the agency tribunal set forth the findings and explanations needed for "reasoned decisionmaking."

Remand for these purposes is required. See *Overton Park*, 401 U.S. at 420-421, 91 S.Ct. 814 (remanding for further proceedings appropriate to the administrative process).

VACATED AND REMANDED.

UNITED STATES, Defendant-Appellee.

No. 01-5001.

United States Court of Appeals, Federal Circuit.

Jan. 23, 2002.

Contractor brought suit against United States seeking to recover additional costs on two contracts for repair and improvement of sewage treatment plants. The United States Court of Federal Claims, Lynn Jeanne Bush, Judge, granted partial summary judgment for United States, 47 Fed. Cl. 340. Contractor appealed. The Court of Appeals, Michel G. Snieland, Judge, held that: (1) contract terms that plant shall remain in operation meant that waste treatment plant had to remain functional and thus had to continue to operate; (2) normal treatment of wastewater required to be performed against contractor; (3) contractor's interpretation of contract was unreasonable; (4) contract was performed as written, and (5) contract, performable as written, and (6)

contract was not under "constructive suspension." Affirmed.

1. United States \Rightarrow 70(30)
Contractors will have a patent ambiguity construed against them unless they inquired about the correct meaning of the terms at issue.

2. United States \Rightarrow 70(8)
Contract term, "the plant shall remain in operation," meant that waste treatment plant had to remain functional and thus had to continue its normal treatment of wastewater, although contractor asserted that it was impossible for plant to continue its normal treatment of wastewater while it was under repair, there were several alternatives for sequencing tasks needed to perform contract, each of which would have permitted the plant to "remain in operation."

3. Federal Civil Procedure \Rightarrow 2492
Statement by assistant plant manager, that waste treatment plant's trickling filter could be shut down, but only for "not more than 60 days" amounted to nothing more than a "scintilla of evidence," and could not serve as basis to withstand summary judgment, on issue of whether filter had to remain in operation during construction; assistant plant manager did not have authority to amend contract and contractor failed to provide any other evidence showing that treatment plant could continue to operate without trickling filter, but government, by contract, offered conclusive evidence confirming that plant could not operate normally without that filter. Fed. Rules Civ.Proc.Rule 56, 28 U.S.C.A.

See publication Words and Phrases for other judicial constructions and definitions.

4. United States \Rightarrow 60
Absent some unique circumstance, e.g., fraud, only the government's contract-

ing officer or other authorized representatives can bind the government.

5. United States \Rightarrow 70(2.1, 30)
Courts ordinarily construe an ambiguous contract term against the party who drafted it; as an exception to this rule, an ambiguity on the face of the contract, a patent ambiguity, triggers a duty on behalf of a public contractor to inquire about that ambiguity before it even bids on a contract and absent such an inquiry, a patent ambiguity in the contract will be resolved against the contractor.

6. United States \Rightarrow 70(30)
Contractor's proposed interpretation of government construction contract resulted in contract having "patent ambiguity," requiring ambiguity to be construed against contractor; according to contractor's interpretation of contract, critical operations of plant would have been shut down and would have completely disrupted normal plant operations, in direct conflict with "remain in operation" and least possible disruption terms in contract.

See publication Words and Phrases for other judicial constructions and definitions.

7. United States \Rightarrow 74(4)
In order for a contractor to recover based on an ambiguous contract provision, the contractor must have relied on its interpretation of that provision when preparing its bid.

8. United States \Rightarrow 70(3)
A contractor's interpretation of a latent ambiguity will only be adopted if it is found to be reasonable; if a court finds that a patent ambiguity did not exist, then the reasonableness of the contractor's interpretation becomes crucial in deciding whether the normal contra proferentem rule applies.